

IN THE  
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Kay Lichtenwalter

Serial No.: 09/895,892

Filing Date: June 29, 2001

Title: DRY BIOCHEMICAL ASSAY PLATE AND METHOD FOR MAKING THE SAME



Examiner: Christopher L. Chin

Group Art Unit: 1641

COMMISSIONER FOR PATENTS  
PO Box 1450  
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

This Information Disclosure Statement is submitted:

- (X) under 37 CFR 1.97(b), or  
(Within three months of filing national application; or date of entry of national application; or before mailing date of first office action on the merits; whichever occurs last)
- ( ) under 37 CFR 1.97(c) together with either a:
  - ( ) Statement under 37 CFR 1.97(e), or
  - ( ) a \$180.00 Processing fee under 37 CFR 1.17(p), or  
(After the CFR 1.97 (b) time period, but before final action or notice of allowance, whichever occurs first)
- ( ) under 37 CFR 1.97 (d) together with a:
  - ( ) Statement under 37 CFR 1.97(e), and
  - ( ) a \$180.00 processing fee under 37 CFR 1.17(p).  
(Filed after final action or notice of allowance, whichever occurs first, but before payment of the issue fee)

Please charge to Deposit Account 50-1078 the sum of \$0.00 . At any time during the pendency of this application, please charge any fees required or credit any overpayment to Deposit Account 50-1078 pursuant to 37 CFR 1.25.

(X) Applicant(s) submit herewith Form PTO 1449. References identified with an asterisk (\*) were disclosed in Patent Application No. \_\_\_\_\_ filed \_\_\_\_\_, now U. S. Patent No. \_\_\_\_\_, and, as such, copies thereof are not included pursuant to the provisions of 37 CFR 1.98(d).

( ) A concise explanation of the relevance of foreign language patents, foreign language publications and other foreign language information listed on PTO Form 1449, as presently understood by the individuals(s) designated in 37 CFR 1.56 (c) most knowledgeable about the content is given on the attached sheet, or where a foreign language patent is cited in a search report or other action by a foreign patent office in a counterpart foreign application, an English language version of the search report or action which indicates the degree of relevance found by the foreign office is listed on form PTO 1449 and is enclosed herewith.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450.

Date of Deposit: Sept. 30, 2004

Typed Name: Theodore J. Leitereg

Signature: 

Respectfully submitted,

Kay Lichtenwalter

By 

Theodore J. Leitereg

Attorney/Agent for Applicant(s)

Reg. No. 28,319

Date: Sept. 30, 2004



## PATENT APPLICATION

Sheet 1 of 7

FORM PTO-1449

LIST OF PATENTS AND PUBLICATIONS FOR  
APPLICANT'S INFORMATION DISCLOSURE  
STATEMENT

(Use several sheets if necessary)

ATTY. DOCKET NO.

1094560-3

SERIAL NO.

09/895,892

APPLICANT

Kay Lichtenwalter

FILING DATE

06/29/2001

GROUP

1641

## REFERENCE DESIGNATION

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	*	DOCUMENT NUMBER	DATE	NAME
	A	5,922,534	Jul. 13, 1999	Lichtenwalter
	B	6,255,053	Jul. 3, 2001	Lichtenwalter
	C	4,563,417	Jan. 6, 1986	Albarella et al
	D	4,994,373	Feb. 19, 1991	Stavrianopoulos et al
	E	6,210,894	Apr. 3, 2001	Brennan
	F	5,424,186	Jun. 13, 1995	Fodor et al
	G	5,837,832	Nov. 17, 1998	Chee et al
	H	3,642,450	Feb. 15, 1972	Eriksson
	I	5,077,210	Dec. 31, 1991	Eigler et al
	J	5,215,882	Jun. 1, 1993	Bahl et al

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	NAME	TRANSLATION	
					YES	NO
	K	WO 85/01051	Mar. 15, 1985	Arnold		
	L	WO 89/10977	Nov. 16, 1989	Southern		
	M	WO 93/22680	Nov. 11, 1993	McGall et al		
	N	WO 93/09668	May. 27, 1993	Winkler et al		

## OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

	O	Chow et al., Analytical Biochemistry, 175: 63-86 (1988); "A High Capacity, Reusable Oligo-deoxythymidine Affinity Column".
	P	Dunn et al., Methods in Enzymology, 65: 468-478 (1980); "Mapping Viral RNAs by Sandwich Hybridization".
	Q	H. Wheetall, Methods in Enzymology, 44: 134-148 (1976); "Covalent Coupling Methods for Inorganic Support Materials".

EXAMINER

DATE CONSIDERED

\* Copies of these references are not enclosed pursuant to 37 CFR 1.98(d). (See accompanying IDS)



## PATENT APPLICATION

Sheet 2 of 7

FORM PTO-1449

LIST OF PATENTS AND PUBLICATIONS FOR  
APPLICANT'S INFORMATION DISCLOSURE  
STATEMENT

(Use several sheets if necessary)

ATTY. DOCKET NO.

1094560-3

SERIAL NO.

09/895,892

APPLICANT

Kay Lichtenwalter

FILING DATE

06/29/2001

GROUP

1641

## REFERENCE DESIGNATION

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	*	DOCUMENT NUMBER	DATE	NAME
	R	5,653,939	Aug. 5, 1997	Hollis et al
	S	5,668,642	Nov. 18, 1997	Chrissey et al
	T	5,843,767	Dec. 1, 1998	Beattie

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	NAME	TRANSLATION	
					YES	NO

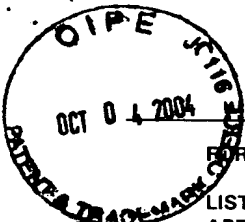
## OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

U	Rentrop et al., Histochemical Journal, 18: 271-276 (1986); "Aminoalkylsilane-treated glass slides as support for in situ hybridization of keratin cDNAs to frozen tissue sections under varying fixation and pretreatment conditions".
V	Matteucci et al., J. Am. Chem. Soc., 103: 3185-91 (1981); "Synthesis of Deoxyoligonucleotides on a Polymer Support".
W	Jonsson et al., Methods in Enzymology, 137: 381-388 (1988); "Surface Immobilization Techniques in Combination with Ellipsometry".

EXAMINER

DATE CONSIDERED

\* Copies of these references are not enclosed pursuant to 37 CFR 1.98(d). (See accompanying IDS)



FORM PTO-1449

LIST OF PATENTS AND PUBLICATIONS FOR  
APPLICANT'S INFORMATION DISCLOSURE  
STATEMENT

(Use several sheets if necessary)

ATTY. DOCKET NO.

1094560-3

SERIAL NO.

09/895,892

APPLICANT

Kay Lichtenwalter

FILING DATE

06/29/2001

GROUP

1641

REFERENCE DESIGNATION

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	*	DOCUMENT NUMBER	DATE	NAME

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	NAME	TRANSLATION	
					YES	NO

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

	X	Maniatis et al., Molecular Cloning A Laboratory Manual, pp. 313-315 and 326-328 (1982).
	Y	C. Kessler, Nonradioactive Labeling Methods for Nucleic Acids, in Nonisotopic DNA Probe Techniques, edited by L. Kricka, Chapter 2, pp. 29-91 (1991).
	Z	N. Dyson, Immobilization of Nucleic Acids and Hybridization Analysis, in Essential Molecular Biology Vol. II: A Practical Approach, edited by T.A. Brown, Chapter 5, pp. 111-156 (1991).

EXAMINER

DATE CONSIDERED

\* Copies of these references are not enclosed pursuant to 37 CFR 1.98(d). (See accompanying IDS)



## PATENT APPLICATION

Sheet 4 of 7

FORM PTO-1449

LIST OF PATENTS AND PUBLICATIONS FOR  
APPLICANT'S INFORMATION DISCLOSURE  
STATEMENT

(Use several sheets if necessary)

ATTY. DOCKET NO.

1094560-3

SERIAL NO.

09/895,892

APPLICANT

Kay Lichtenwalter

FILING DATE

06/29/2001

GROUP

1641

## REFERENCE DESIGNATION

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	*	DOCUMENT NUMBER	DATE	NAME

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	NAME	TRANSLATION	
					YES	NO

## OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

AA	Southern et al., Genomics, 13: 1008-1017 (1992); "Analyzing and Comparing Nucleic Acid Sequences by Hybridization to Arrays of Oligonucleotides: Evaluation Using Experimental Models".
BB	Fodor et al., Science, 251(4995): 767-773 (1991); "Light-Directed, Spatially Addressable Parallel Chemical Synthesis".
CC	Maskos et al., Nucleic Acids Research, 20(7): 1675-1678 (1992); Parallel analysis of oligodeoxyribonucleotide (oligonucleotide) interactions. 1. Analysis of factors influencing oligonucleotide duplex formation".

EXAMINER

DATE CONSIDERED

\* Copies of these references are not enclosed pursuant to 37 CFR 1.98(d). (See accompanying IDS)



FORM PTO-1449

LIST OF PATENTS AND PUBLICATIONS FOR  
APPLICANT'S INFORMATION DISCLOSURE  
STATEMENT

(Use several sheets if necessary)

ATTY. DOCKET NO.

1094560-3

SERIAL NO.

09/895,892

APPLICANT

Kay Lichtenwalter

FILING DATE

06/29/2001

GROUP

1641

REFERENCE DESIGNATION

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	*	DOCUMENT NUMBER	DATE	NAME

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	NAME	TRANSLATION	
					YES	NO

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

DD	Bhatia et al., J. Am. Chem. Soc., 114: 4432-4433 (1992); "New Approach To Producing Patterned Biomolecular Assemblies".
EE	Matsuzawa et al., J. of Neuroscience Methods, 50: 253-260 (1993); "Containment and growth of neuroblastoma cells on chemically patterned substrates".
FF	Chrisey et al., Mat. Res. Soc. Symp. Proc., 330: 179-184 (Nov 29-Dec. 3, 1993); "Selective Attachment of Synthetic DNA to Self-assembled-monolayer Functionalized Surfaces".

EXAMINER

DATE CONSIDERED

\* Copies of these references are not enclosed pursuant to 37 CFR 1.98(d). (See accompanying IDS)



## PATENT APPLICATION

Sheet 6 of 7

FORM PTO-1449

LIST OF PATENTS AND PUBLICATIONS FOR  
APPLICANT'S INFORMATION DISCLOSURE  
STATEMENT

(Use several sheets if necessary)

ATTY. DOCKET NO.

1094560-3

SERIAL NO.

09/895,892

APPLICANT

Kay Lichtenwalter

FILING DATE

06/29/2001

GROUP

1641

## REFERENCE DESIGNATION

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	*	DOCUMENT NUMBER	DATE	NAME

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	NAME	TRANSLATION	
					YES	NO

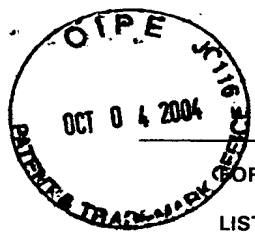
## OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

GG	Southern et al., Nucleic Acids Research, 22(8): 1368-1373 (1994); "Arrays of complementary oligonucleotides for analysing the hybridisation behaviour of nucleic acids".
HH	Lamture et al., Nucleic Acids Research, 22(11): 2121-2125 (1994); "Direct detection of nucleic acid hybridization on the surface of a charge coupled device".
II	Guo et al., Nucleic Acids Research, 22(24): 5456-5465 (1994); "Direct fluorescence analysis of genetic polymorphisms by hybridization with oligonucleotide arrays on glass supports".

EXAMINER

DATE CONSIDERED

\* Copies of these references are not enclosed pursuant to 37 CFR 1.98(d). (See accompanying IDS)



## PATENT APPLICATION

Sheet 7 of 7

FORM PTO-1449

LIST OF PATENTS AND PUBLICATIONS FOR  
APPLICANT'S INFORMATION DISCLOSURE  
STATEMENT

(Use several sheets if necessary)

ATTY. DOCKET NO.

1094560-3

SERIAL NO.

09/895,892

APPLICANT

Kay Lichtenwalter

FILING DATE

06/29/2001

GROUP

1641

## REFERENCE DESIGNATION

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	*	DOCUMENT NUMBER	DATE	NAME

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	NAME	TRANSLATION	
					YES	NO

## OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

JJ	Eggers et al., BioTechniques, 17(3): 516-524 (1994); "A Microchip for Quantitative Detection of Molecules Utilizing Luminescent and Radioisotope Reporter Groups".

EXAMINER

DATE CONSIDERED

\* Copies of these references are not enclosed pursuant to 37 CFR 1.98(d). (See accompanying IDS)